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## PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

BARTH-2

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Application Number

10/659,766

Filed

September 10, 2003

First Named Inventor

Rainer Barth

Art Unit

2443

Examiner

Dennison, Jerry B

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

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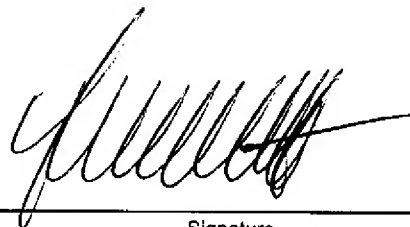
☐ applicant/inventor.

☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

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NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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## **ARGUMENTS ACCOMPANYING THE PRE-APPEAL BRIEF REQUEST FOR REVIEW**

The present invention, as set forth in claim 1, is directed to a method that provides more secure and reliable communication between industrial machine controllers and the technicians who maintain and repair them, so as to increase efficient use of technical personnel by enabling roving technicians to be used, while maintaining the security and productivity of those industrial machines.

### **ISSUE 1:**

Rejection of claims 1-4, 7-12, 14-15, and 17-26 as obvious over Wylie et al. in view of Zhou et al.

**CLEAR ERROR IN THE EXAMINER'S REJECTION:** Misinterpretation of the prior art and lack of Motivation for making the combination of disclosures that is relied upon in this rejection under 35 U.S.C. §103(a).

### **Zhou is superfluous to Wylie**

In contrast to the conventional industrial machine control systems disclosed by Wylie, the remarkable success of manufacturing-sector exports in the German economy has been made possible by Germany's more intensive and ever increasing reliance on industrial automation. This increased reliance on automation has resulted in an ever increasing use of "roving" technicians in German manufacturing, each roving technician being responsible for manufacturing machines at multiple industrial sites, and spending a substantial amount of time traveling between industrial sites on a daily basis.

Applicant's specification explains that PKI email encryption, and the other conventional security measures used to secure the communications that can alert technicians in a central office to the problems occurring in Wylie's machines are not suitable for use by applicant's roving technicians, particularly during the times when those technicians are traveling between such industrial sites, see paragraph [0007]. At the same time, the potential costs and liabilities associated with unauthorized access to

those machine controllers are also increasing as Germany's manufacturing plants become more highly automated, as is noted in paragraph [0006] of applicant's specification. It is well known that serious damage can happen very rapidly in such highly automated plants, regardless of whether the unauthorized act was intentionally malicious or merely incompetent. Therefore, at the same time that conventional security measures are too restrictive for use by roving technicians, on the other hand, assuring that only authorized personnel have access to both the alarm event messages and the controllers themselves has also become more critically important.

Wylie neither discloses nor suggests that mobile technicians, like those whose roving work assignments support Germany's on-going economic success, might need some different security methods. On the contrary, Wylie's disclosure suggests that the routine security measures used by conventional industrial machine controllers when sending alarm event messages to remote technicians have been sufficient and satisfactory. In particular, Wylie discloses the use of Internet email as well as other public and private wireless and hardwired communications modalities, without regard for their well-known vulnerabilities. For example, in col. 5, lines 60-65, and col. 8, lines 30-53. Instead, Wylie discloses improved diagnostic algorithms for use in these conventional industrial controllers.

Since Wylie's disclosure suggests that conventional alarm event messages sent by conventional industrial machine controllers to a remote location using conventional methods are sufficiently secure, Zhou is superfluous to Wylie. Thus, Wylie teaches against making the combination of Wylie with Zhou that is proposed in this Office Action.

#### **Sending alarms to the "specified receiver" is important**

Conventional alarm event messages can be securely sent by conventional industrial controllers to conventional -- non-roving -- technicians using PKI and private networks, as Wylie does. This is the prior art discussed in paragraph [0007] of applicant's specification. However, both Wylie and Zhou rely on a remote office staff to then forward an alert to the appropriate roving technician -- the "specified receiver" for that particular alarm -- from that fixed remote location. Zhou's system is like Wylie's

conventional machine controllers, in that Zhou relies the remote ASP to forward alerts to the service bureau's physicians, babysitters, and other roving customers who use their service. Thus the proposed combination of Wylie with Zhou is inoperative for improving the prior art communications methods used to contact roving technicians, which were indirect, inconvenient, and unacceptably delayed.

Applicant's secure, decentralized alarm event messaging method is advantageous in that it a) eliminates that administrative delay and expense incurred by using the central office to redirect alarms. Instead, applicant's secure, decentralized alarm event messaging method sends each alarm "from the controller" to the "specified recipient" as recited in applicant's claims, not the central office. It also is advantageously b) inherently independent of the operational condition of the conventional link between the controllers and the technician's fixed centralized office, which can still operate in parallel with applicant's direct link to the roving technicians. Therefore applicant's innovative method not only improves communication with the roving technicians, but also provides a redundant backup for the conventional communication method that is disclosed by Wylie. The method recited in applicant's claims is thus inherently more reliable, in addition to being more effective, timely, flexible and convenient than the conventional method used by Wylie's conventional controllers.

Using Zhou to communicate between Wylie's conventional central office that receives alarm event messages from conventional industrial controllers and roving technicians -- in addition to being motivated purely by hindsight -- is inoperative to provide the timely, reliable and secure communications needed by roving technicians.

### **Zhou Also Teaches Away from the Cited Combination**

Zhou also teaches away from combining Zhou's ASP with Wylie's' industrial controllers in any way. That combination is inconsistent with the disclosed purpose and advantages of the method used by Zhou's ASP.

On the contrary, Zhou's ASP is a multipurpose monitoring and alarm messaging service bureau that is profitable because it benefits from economies of scale by centralizing all monitoring and control functions under one roof -- see Zhou, paragraph

[0005]. Unlike Wylie's controllers, Zhou's ASP must be 1) non-specialized and 2) remote from all of the devices it controls and monitors. Thus Zhou teaches away from both the use of 1) Wylie's industrial controllers that locally monitor and control machines and locally generate alarm event messages that are sent to a central office, and 2) applicant's decentralized communication of alarm messages from the monitored devices themselves directly to the specified recipients/receivers. Both Wylie and the claimed invention are completely contrary to Zhou's teaching that centralized control and message generation is preferable.

Zhou teaches away from the local control and monitoring relied on by Wylie and recited in applicant's claims. Therefore the proposed combination is improper and this rejection should be withdrawn.

**The combination of Zhou with Wylie is logically incoherent**

The Office Action has again failed to show that the proposed combination of Wylie with Zhou's centralized service bureau, which relies on economies of scale that are 1) incompatible with the local control and monitoring required by Wylie's industrial machines, and 2) is cited to solve an industrial control problem that Wylie does not recognize, was not "gleaned only from applicant's disclosure" See *In re McLaughlin*, 443 F.2d 1392.

The conventional messaging methods used by Wylie to send alarm messages from Wylie's conventional controllers to Wylie's conventional technicians were adequate, so it is not surprising that Wylie and the German texts that are of record in this application disclose no reason for seeking a more secure means of alarm event messaging. Furthermore, Zhou teaches against the local control and monitoring required by Wylie's machines. Thus this was a combination that could be "gleaned only from applicant's disclosure" because their respective teachings are inconsistent and neither one recognizes the problem addressed by applicant's claimed invention.

Proposing this combination of the 1) incompatible disclosure of Zhou to solve a problem that Wylie and the other industrial controller art 2) does not recognize is an obvious solution to their incompatible and undisclosed problem, is a self-contradictory

argument. Thus this combination is motivated by purely by hindsight, and therefore is improper.

Zhou generates and transmits alarms from Zhou's central office.

Finally, Zhou's centralized system does not transmit a respective alarm message "from the controller" as recited in applicant's amended claims, i.e., the "industrial machine controller" that is recited in applicant's claims. These industrial controllers are disclosed by Wylie as being a special-purpose control computer that is located with the respective industrial machines that it controls, col. 1, lines 44-48. These industrial machine controllers are located with their respective industrial machines because technicians use them for on-site maintenance and repair work on those machines, as is well-known in the art. Therefore it is critically important that applicant's invention produce alarm messages "from the controller" and provide access to "event-relevant information" that is available from the controller, as recited in applicant's claims.

In addition to having been combined with Wylie solely on the basis of hindsight, Zhou is also inapposite to the invention as it is explicitly recited in applicant's amended claims, because Zhou's alarm messages are generated and transmitted by Zhou's central office, not a "from the controller" as recited in the claims. Thus the combination of is this rejection is not supported by the cited art and should be withdrawn.

For the reasons set forth above, it is respectfully requested to reverse the rejection of claim 1 and all claims dependent on claim 1 under 35 U.S.C. 103(a).

Respectfully submitted,

By: 

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